



Office of Childhood
Office of Special Education
January 2025

Annual Report on Infants Referred to First Steps Identified through the Newborn Hearing Screening Program

Purpose

Under the Newborn Hearing Screening law, RSMo 191.931, the Missouri Department of Elementary and Secondary Education shall “monitor the delivery of early intervention services to those infants identified by the newborn hearing screening program and report annually to the department of health and senior services.” Eligible infants are served by the Missouri First Steps Program under Part C of the Individuals with Disabilities Education Act (IDEA). This report provides information related to the number of infants referred to First Steps born in 2023 and identified with permanent hearing loss through the newborn hearing screening program.

Infants Enrolled in the First Steps Program

As of October 22, 2024, 144 infants born in 2023 were identified with hearing loss by the Department of Health and Senior Services (DHSS). It is important to note that the 144 infants included infants who received incomplete results or unknown types of hearing loss based on what was reported to DHSS. Infants who were determined to be suffering from middle ear pathology (e.g., fluid in the middle ear from colds, ear infections) and who do not have a permanent hearing loss could be removed from the list at a later date based on updates received from audiologists.

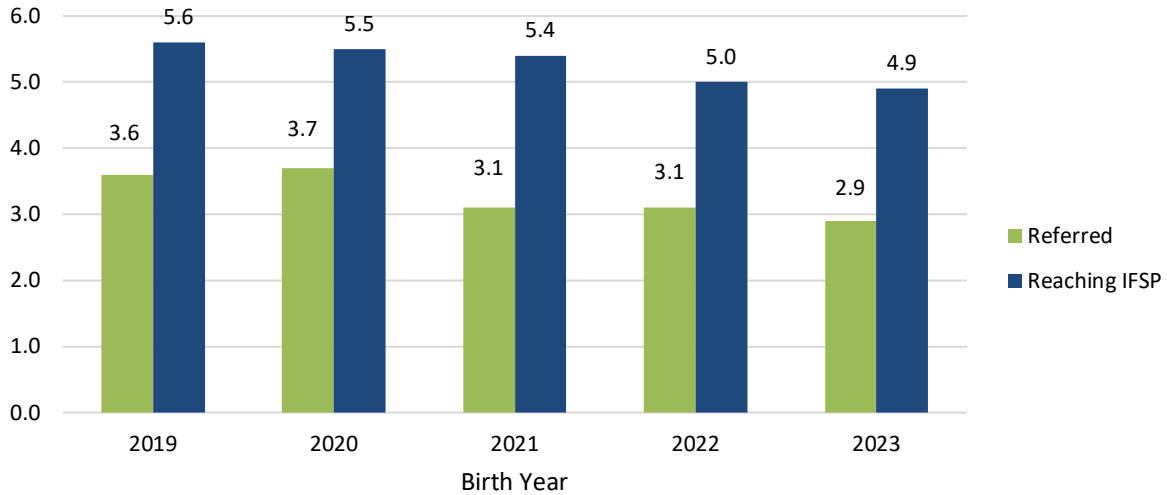
Of the 144 infants identified by DHSS, 126 (86.1%) were referred to the First Steps program. Of the 126 infants referred to First Steps, 104 (82.5%) were found eligible and had an Individualized Family Service Plan (IFSP). The remaining 22 infants did not reach IFSP status due to the following reasons: 13 infants were withdrawn, seven infants were unable to be located, one infant was ineligible for the First Steps program, and one infant was deceased.

Of the 104 infants who had an IFSP, 81 (77.9%) were in active status as of October 21, 2024. The remaining infants are inactive due to the following reasons: 10 infants were withdrawn, nine infants were unable to be located, and two infants moved out of state, and two infants were deceased.

Average Age at Referral

Table 1 represents the average age in months of infants at the time of referral to First Steps for the 126 infants referred. The average age at referral for infants born in 2023 was 2.9 months. The average age at the time of initial IFSP for the 104 infants who reached IFSP was 4.9 months.

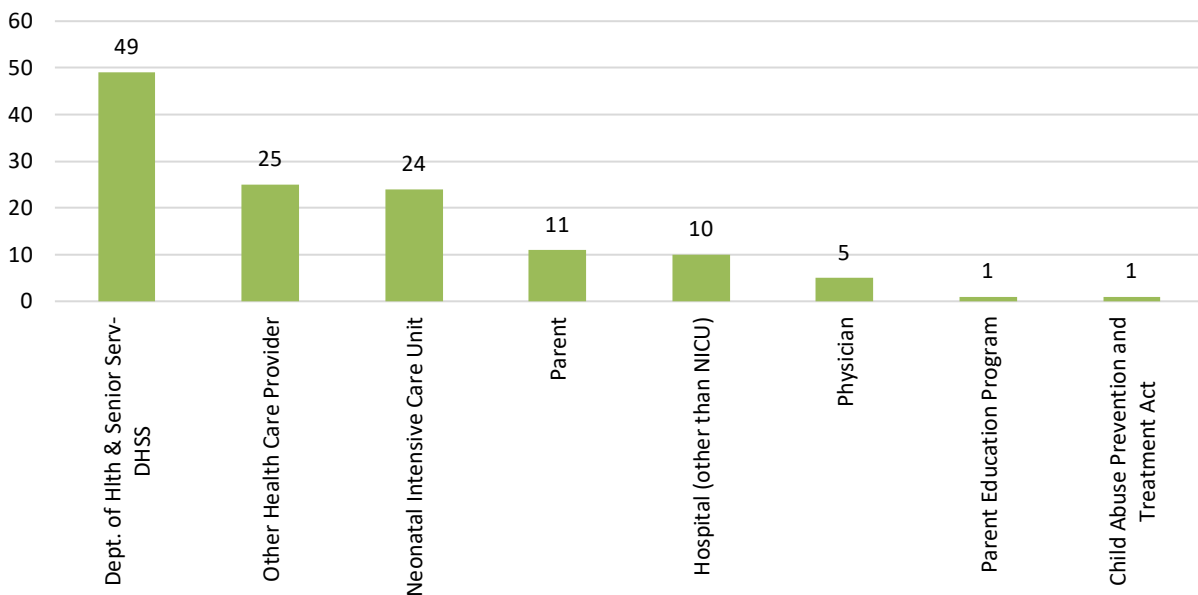
Table 1. Average Age in Months at Referral and Reaching IFSP



Referral Sources

Table 2 represents the sources of initial referrals to First Steps for infants with hearing loss identified by DHSS. Of the 126 infants referred to First Steps, most initial referrals were made by DHSS with 49 (38.9%), Other Health Care Provider with 25 (19.8%), Neonatal Intensive Care Unit with 24 (19.0%), and Parent with 11 (8.7%).

Table 2. First Steps Referral Sources



Eligibility Categories

Table 3 provides the primary First Steps eligibility category for the 104 infants determined eligible for services and reached IFSP. There were 88 infants (84.6%) found eligible due to a diagnosed condition.

Table 3. Reasons for Eligibility

Reason for Eligibility	Number of Infants	Percent of Eligibility
Diagnosed Condition	88	84.6%
Developmental Delay - Half age delay	9	8.7%
Newborn Condition	6	5.8%
Other Condition	1	1.0%
Total	104	100.0%

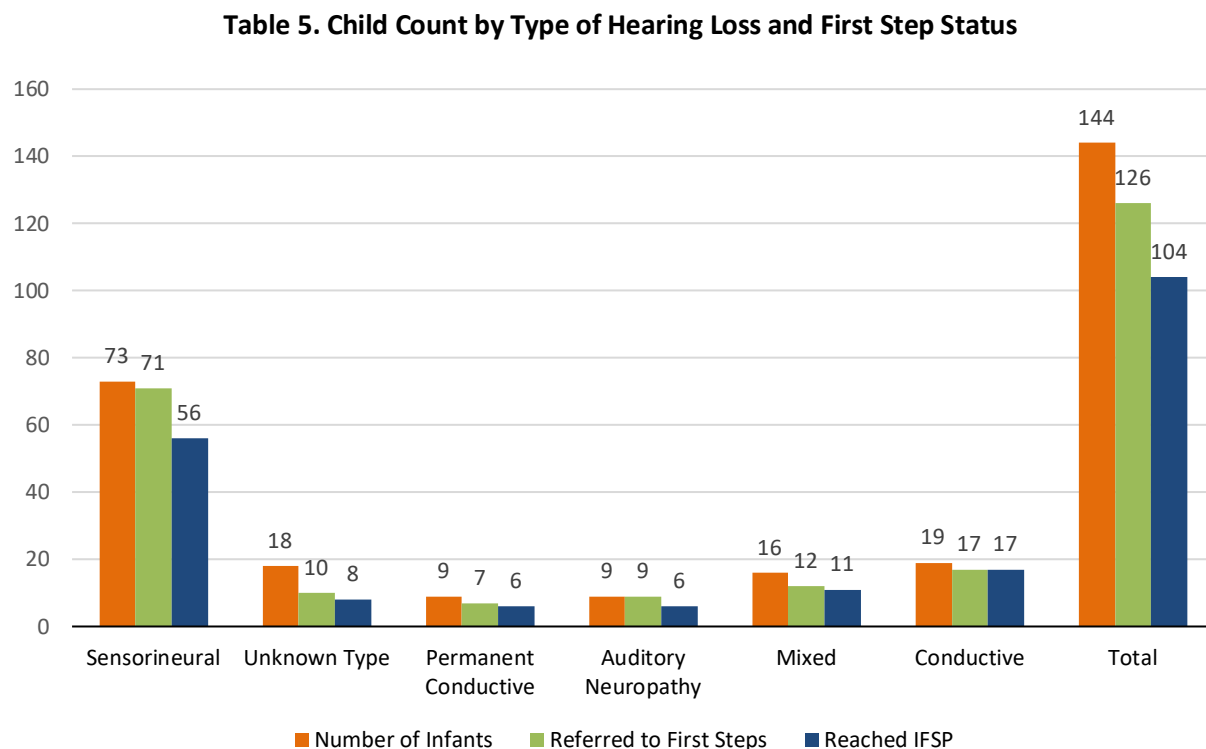
Type of Hearing Loss

Table 4 represents the type of hearing loss and related First Steps referral and eligibility percentages for the 144 infants identified by DHSS. Of the 144 infants, 73 (50.7%) had a sensorineural hearing loss. Of the 73 infants with sensorineural hearing loss, 71 (97.3%) were referred to First Steps and, of those referred, 56 (78.9%) reached IFSP.

Table 4. Type of Hearing Loss and First Steps Status

Type of Loss	Number of Infants	Referred to First Steps	Reached IFSP	Percent Reached IFSP
Sensorineural	73	71	56	78.9%
Unknown Type	18	10	8	80.0%
Permanent Conductive	9	7	6	85.7%
Auditory Neuropathy	9	9	6	66.7%
Mixed	16	12	11	91.7%
Conductive	19	17	17	100.0%
Total	144	126	104	82.5%

Table 5 visually represents child count by type of hearing loss and First Steps status based on the table 4 information.



Service Authorizations

Table 6 represents the First Steps service authorizations for the 81 infants identified by DHSS who were in active IFSP status as of October 21, 2024. There were 358 active authorizations for the 81 infants with hearing loss. Nearly 70 percent of authorizations for active infants were found in audiology and special instructions categories. The top three categories of First Steps service authorizations were:

- 1) 127 (35.5%) authorizations for Audiology;
- 2) 117 (32.7%) authorizations for Special Instruction; and
- 3) 45 (12.6%) authorizations for Physical Therapy.

Table 6. First Steps Authorizations

	ABR: Audiometry evoked potential	AT Service	Consultation/ Facilitation with Others	Direct Infant Service	Evaluation/ Assessment	Family Education/ Training/Support	OAE limited: Evoked otoacoustic	Tympanometry (impedance testing)	Visual Reinforcement Audiometer	Grand Total	Percentage
Audiology	7	38	0	9	37	5	31	0	0	127	35.5%
Occupational Therapy	0	0	9	28	0	0	0	0	0	37	10.3%
Physical Therapy	0	0	8	37	0	0	0	0	0	45	12.6%
Special Instruction	0	0	20	55	36	6	0	0	0	117	32.7%
Speech Language Pathology	0	0	2	28	0	2	0	0	0	32	98.9%
Total	7	38	39	157	73	13	31	0	0	358	100.0%

* ABR – Auditory Brainstem Response

* AT – Assistive Technology

* OAE – Otoacoustic Emissions